

## CLIMATOLOGICAL DATA FOR JULY, 1911.

## DISTRICT NO. 1, NORTH ATLANTIC STATES.

WILFORD M. WILSON, District Editor.

## GENERAL SUMMARY.

The most prominent feature of the weather of July, 1911, was the period of intense heat that continued with little or no interruption from the beginning of the month until about the 13th. The temperature rose to a higher degree than had been known for many years, and over nearly half of the district all records for the last 30 years were surpassed. During the latter part of the month the weather was much cooler; in fact, the temperature after the 14th averaged considerably below normal. The rainfall of the month occurred chiefly between the 14th and 25th; in the New England States and part of New York the showery period continued until the 30th, while in Virginia and Maryland it began about the 7th. In all parts of the district at least one-half of the month was quite dry, and, with a few local exceptions, vegetation at one time or another suffered much from the lack of sufficient moisture. The distribution of rainfall was decidedly irregular, the records showing many instances of differences in the month's precipitation amounting to 3 inches or more at stations very near each other. This is due to the fact that much of the precipitation came in the form of heavy local showers. Some of these were attended by heavy thunder and lightning, and excessive rates of rainfall, but the damage from these causes was much less than in the preceding month. The number of rainy days was unusually small, while the percentage of clear weather was nearly equal to the highest on record for any month. The following table presents the leading meteorological features for the several sections in the district:

States, or parts of States, within district No. 1.	Temperature.				Precipitation.				Average number of—
	Average.	Departure.	Highest.	Lowest.	Average.	Departure.	Greatest total.	Least total.	
New England States.....	72.6	+3.2	106	40	3.95	+0.27	10.77	0.31	8 17
New York.....	72.0	+2.2	106	38	2.69	-1.94	5.27	0.90	8 17
Pennsylvania.....	74.2	+2.3	105	40	3.27	-0.99	7.41	0.91	9 17
New Jersey.....	76.0	+2.2	104	42	3.64	-1.27	6.46	2.06	8 12
Maryland, Delaware, and District of Columbia.....	77.7	+1.6	106	46	2.64	-1.87	6.07	0.04	6 19
West Virginia.....	73.1	+0.8	102	40	2.50	-0.98	3.72	0.40	6 16
Virginia.....	77.1	+1.4	104	44	3.19	-1.05	5.31	1.25	7 15

## TEMPERATURE.

The mean temperature for the month was above normal at all stations, except 4, and was higher than for any July since 1901, or earlier, in at least half of the district. For the New England States the average temperature,  $72.6^{\circ}$ , was the highest for any July since the sectional averages have been computed, beginning

in 1888. South of Pennsylvania the average temperature was not unusually high, though it was generally above normal, and the hot wave of the first two weeks was scarcely less marked than in the northern part of the district. Intensely hot weather prevailed in all sections at the beginning of the month and continued for nearly two weeks, being relieved by one or two days of slightly cooler weather with showers in the southern part of the district on the 7th or 8th. At about half the stations in the district temperatures of  $100^{\circ}$  or above were recorded on one or more days before the 12th. The highest temperature recorded in the district was  $106^{\circ}$ , which was experienced at points in New Hampshire, Massachusetts, New York, and Maryland. On the 3d, 4th, 6th, 10th, and 11th temperatures of  $100^{\circ}$  or more occurred in nearly all sections. At 8 of the stations in New York and 13 in New Jersey, the temperature reached  $100^{\circ}$  or above on three or more days; at Addison, N. Y., and Somerville, N. J., a temperature of  $100^{\circ}$  or above was observed on six different days. The hot period was remarkable for its length as well as its intensity, and so disastrous were its effects upon human life that probably more than 1,000 persons within the district died as a direct result of the extreme heat, and the number of sufferers from disease whose end was hastened by the hot weather was fully as great. The heat of this period together with the want of rainfall proved very injurious to vegetation, so that the growth of most plants was checked and over extensive areas the grass withered and died.

The weather of the latter half of the month was comparatively pleasant, the nights were cool, and the average temperature on most days was below normal. The coolest weather occurred chiefly in the third decade, the 19th, 23d, 26th, and 27th being the dates on which the lowest temperatures generally occurred. Only 2 stations in the entire district, Indian Lake, N. Y., and Morehouseville, N. Y., recorded temperatures below  $40^{\circ}$ . At each of these stations the minimum was  $38^{\circ}$ . Generally speaking, the lowest temperature for the month ranged from  $40^{\circ}$  to  $60^{\circ}$  in various parts of the district.

## PRECIPITATION.

There was a marked deficiency in rainfall over the greater part of the district, particularly before the 14th, and, owing to the dry period of the latter part of June, drought conditions of unusual severity developed before the middle of July, even in some of the localities where the monthly rainfall exceeded the normal. The month's rainfall came largely in the form of heavy local showers, causing a decided irregularity in its distribution, and, though there were 46 stations in the district reporting an excess of rainfall, it appears that the deficiency reported by all other stations represents more accurately the general condition of insufficient rainfall. Further indications of general drought are furnished by numerous press reports coming from all sections. In Massachu-

setts, where one station, Rockport, reported a total rainfall of 10.77 inches, and in other parts of New England where the average precipitation exceeded the normal, the effects of the drought were as severe as anywhere in the district, for the showers so often fell at excessive rates or came so late in the month that comparatively little good resulted. For example, at Rockport, Mass., there was a rainfall of 2.50 inches on the 6th, which was the only precipitation from the beginning of the month until the 17th, when 0.05 inch was recorded. Heavy showers occurred again at this station on the 21st, 24th, 25th, 28th, and 29th, the amount recorded on the 28th being 4.85 inches—the greatest amount for a 24-hour period in the district during the entire month.

Rain fell at excessive rates at 15 other stations in New England, chiefly on the 28th, when a general rainfall of  $1\frac{1}{2}$  to 4 inches occurred over that section, completely relieving the drought, but not sufficing to bring the springs, streams, and ponds to a normal stage.

#### RIVER CONDITIONS.

The rivers of the district remained low throughout the month, the changes in the water level being unusually small. The highest stages, as a rule, occurred either on the 1st or about the 18th and the lowest occurred between the 12th and 15th or near the end of the month. At Harrisburg and Wilkes-Barre, Pa., the average stage of the Susquehanna River was the lowest for any July in the past 10 years. Relatively low stages of water prevailed in the greater portions of the Hudson River and its tributaries, with a general tendency to slightly lower conditions toward the end of the month. The lowest reading ever recorded at Trenton Falls, N. Y., 1.4 feet, occurred on the 23d.

#### SUNSHINE.

The percentage of sunshine was unusually high, the average for 14 stations being 66, though at Eastport, Me., and Hartford, Conn., the percentage was only 54. In the southern part of the district the amount of clear weather was remarkable, the percentage of sunshine at Baltimore, Md., being 79. The total sunshine for the month in hours averaged 303 and ranged from 249 at Hartford, Conn., to 358 at Baltimore, Md. The number

of days with 80 per cent or more of the possible sunshine averaged 13, and the number with 20 per cent or less, 3.

For the district the average number of days with 0.01 inch or more of rain was 7, the average number of clear days was 16, partly cloudy days 11, and cloudy days 4.

#### TORNADO AT CONCORD, N. H.

The following abridged account is taken from a report furnished by E. C. Vose, Official in Charge, local office Weather Bureau, Concord, N. H.

On the evening of July 24 between 7.15 and 7.22 p. m. a tornado passed in a northeasterly direction near the southwestern extremity of the city. The destructive effects were limited to a track about 3 miles in length and nowhere more than about 1,000 feet in width. No damage was reported within the city, the tornado apparently having disappeared after crossing South Street and uprooting a number of trees just beyond.

No persons or animals were killed or injured, but numerous buildings were wrecked and a great many trees were uprooted or broken off, and other destruction was wrought such as generally results from this class of storms. In some cases timbers were carried by the wind for a distance of 300 or 400 feet, and a pane of glass was blown nearly three-fourths of a mile. The position of the fallen trees and the scattered débris was such as to indicate clearly the whirling motion of the winds, which has been confirmed also by the statements of persons who witnessed the storm as it approached. One observer described it as having the appearance of a "copper-colored balloon with a tail reaching to the ground."

#### LOCAL STORM AT PLEASANTVILLE, N. J.

An exceptionally severe local storm, which is not definitely known to have been of tornadic character, swept over a portion of Pleasantville, N. J., on the afternoon of the 17th. The high wind demolished chimneys, overturned many small out buildings, unroofed several dwellings, and moved one from its foundation. The storm had no well-defined path, but the destructive effects were confined to an area measuring about 3 miles in length by about one-half mile in width.

TABLE 1.—Climatological data for July, 1911. District No. 1, North Atlantic States.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.					Precipitation, in inches.			Greatest number of rainy days, 0.01 inch or more.	Number of partly cloudy days.	Number of cloudy days.	Sky.	Prevailing wind direction.	Observers.		
				Mean.	Highest.	Date.	Lowest.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.								
<i>Maine.</i>																			
Ba Harbor.	Hancock.	20	25	68.9	+ 3.3	90	6†	50	8†	35	4.41	+ 1.39	1.37	0	11	23	3	sw.	
Cornish.		778	56	73.2	+ 4.2	103	10	48	13	41	3.84	+ 0.43	2.22	0	9	14	8	w.	
Eastport.	Washington.	53	33	64.0	+ 4.2	85	12	52	17	30	3.50	+ 0.08	1.73	0	10	6	17	s.	
Fairfield.	Somerset.	90	20	72.5	+ 4.6	98	4†	50	24†	37†	2.75	- 0.70	1.50	0	7	16†	2†	E. F. Parker.	
Farmington.	Franklin.	450	14	71.6	+ 4.2	104	10	43	23	42	2.68	- 0.91	1.87	0	9	17	8	State Normal School.	
Gardiner.	Kennebec.	163	19	72.1	+ 1.3	102	4	49	27	36	5.63	+ 2.60	1.33	0	13	23	2	Samuel D. Soule.	
Greenville.	Piscataquis.	1,000	8	68.8	-	93	3†	48	8	38	4.04	-	1.41	0	12	26	-	U. S. Weather Bureau.	
Houlton.	Aroostook.	362	9	74.6	-	102	7	49	9	39	2.11	-	0.60	0	5	26	12	3	Bangor & Aroostook R. R.
Lewiston.	Androscoggin.	185	37	73.9	+ 4.4	102	4	53	27	33	5.64	+ 2.03	2.03	0	12	17	7	Union Water Power Co.	
Madison.	Somerset.	257	8	71.0	-	102	11	44	26	49	4.91	-	2.98	0	9	22	2	William Jardine.	
Millinocket.	Penobscot.	386	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	H. S. Ferguson.	
North Bridgton.	Cumberland.	450	18	74.1	+ 4.6	105	4†	49	27	39	3.89	- 1.27	1.72	0	12	11	11	s.	
Orono.	Penobscot.	129	43	71.4	+ 4.1	96	6	48	8	39	4.45	+ 1.13	1.08	0	10	3	22	w.	
Patten.	do.	550	9	70.6	-	100	6†	42	8†	45†	3.73	-	1.15	0	17	6*	3*	Agr. Exp. Station.	
Portland.	Cumberland.	99	40	71.8	+ 3.8	103	4	54	26	29	4.71	+ 1.46	2.79	0	10	13	6	Bangor & Aroostook R. R.	
Presque Isle.	Aroostook.	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	U. S. Weather Bureau.		
Rumford Falls.	Oxford.	505	18	71.6	+ 4.3	101	4	48	23	36	2.46	- 1.75	1.07	0	9	23	4	S. L. Merriman.	
Winslow.	Kennebec.	90	16	73.3	-	101	4	49	27	35	4.43	-	1.77	0	11	-	-	Charles A. Mixer.	
																	Hollingsworth & Whitney Co.		
<i>New Hampshire.</i>																			
Alstead Center.	Cheshire.	1,120	7	71.5	-	97	5	50	26†	33	5.82	-	1.45	0	12	21	3	sw.	
Benton.	Grafton.	2	-	69.8	-	97	3†	45	26	36	4.56	-	2.04	0	7	24	3	w.	
Bethlehem.	do.	1,470	19	69.5	+ 2.4	96	3†	46	27	38	4.74	+ 0.64	2.16	0	14	23	6	State Sanatorium.	
Concord.	Merrimack.	350	51	73.2	+ 4.1	102	4	49	27	35	3.45	- 0.34	2.29	0	7	8	15	Benjamin Tucker.	
Durham.	Stafford.	88	16	73.6	+ 3.7	103	3†	49	20†	36	4.96	+ 1.40	2.75	0	7	24	3	U. S. Weather Bureau.	
Franklin.	Merrimack.	440	12	73.5	-	103	3†	47	27	39	4.29	-	2.16	0	10	19	10	Agr. Exp. Station.	
Grafton.	Grafton.	863	23	68.6	+ 0.8	99	3†	40	20	40	4.03	+ 0.48	2.00	0	8	18	9	Dr. C. P. Webster.	
Hanover.	do.	603	77	71.0	+ 1.8	101	3	47	27	41	8.26	+ 4.60	3.63	0	10	26	4	Perley R. Kimball.	
Keene.	Cheshire.	506	26	72.7	+ 4.4	104	3	43	25	45	3.69	- 0.59	1.09	0	10	20	9	Dartmouth College.	
Nashua.	Hillsboro.	125	26	76.5	+ 5.8	106	4	51	27	36	5.26	+ 1.65	2.14	0	5	-	-	Samuel Wadsworth.	
Newton.	Rockingham.	23	-	72.6	+ 3.4	102	4	47	3†	36	4.27	+ 0.65	3.42	0	5	12	17	Jackson Company.	
Plymouth.	Grafton.	500	23	70.6	+ 3.0	101	3†	43	26	42	4.36	+ 0.94	1.40	0	13	19	4	W. C. Gale.	
																	Hattie G. Trow.		
<i>Vermont.</i>																			
Bloomfield.	Essex.	4	-	68.2	-	98	3	44	23	40	4.53	-	1.10	0	17	20	8	s.	
Cavendish.	Windsor.	910	8	68.0	-	102	5	44	27	46	4.62	-	2.21	0	11	20	8	Lyman Falls L. & P. Co.	
Chelsea.	do.	840	16	68.2	+ 1.0	97	3†	42	1†	47	4.31	+ 0.17	1.48	0	8	23	4	M. A. Kingsbury.	
Jacksonville.	Windham.	1,000	26	70.9	+ 4.4	99	5	40	16	44	1.21	- 3.52	0.50	0	4	26	3	W. F. Dewey.	
Manchester.	Bennington.	980	12	70.7	-	95	4†	45	27	34	0.31	-	0.31	0	2	18	10	Martha French.	
St. Johnsbury.	Caledonia.	711	18	71.5	+ 3.4	101	3	47	8	41	4.73	+ 0.42	1.31	0	11	12	11	N. M. Canfield.	
Woodstock.	Windsor.	700	19	69.4	+ 1.1	100	4	45	27	47	6.72	+ 3.39	1.85	0	9	11	6	Fairbanks Museum.	
																	John S. Eaton.		
<i>Massachusetts.</i>																			
Amherst.	Hampshire.	222	22	74.6	+ 4.1	104	4	49	26†	33	4.21	- 0.36	2.02	0	9	16	12	3	Agr. Exp. Station.
Blue Hill.	Norfolk.	640	27	74.2	+ 5.0	99	3	53	26	30	4.55	+ 0.76	3.32	0	8	14	7	A. Lawrence Rotch.	
Boston.	Suffolk.	124	41	77.1	+ 5.8	104	4	52	28	30	4.65	+ 1.29	3.49	0	4	11	10	U. S. Weather Bureau.	
Chestnut Hill.	do.	124	31	76.1	+ 5.3	103	3	53	26	38	4.69	+ 1.07	3.44	0	4	26	0	Met. Water Board.	
Clinton.	Worcester.	370	15	73.5	+ 3.6	103	4	48	26	36	3.33	- 0.08	2.42	0	10	12*	13*	Do.	
Concord.	Middlesex.	139	21	74.3	+ 3.6	103	4	48	26	36	3.33	-	2.42	0	10	12*	13*	Fred A. Tower.	
Fall River.	Bristol.	200	45	74.6	+ 3.9	91	10	59	28	22	4.71	+ 1.11	2.96	0	8	9	20	C. V. S. Remington.	
Fitchburg.	Worcester.	550	28	75.8	+ 5.3	103	4†	52	26	31	2.52	-	1.15	0	8	22	4	Dr. A. P. Mason.	
Framingham.	Middlesex.	160	31	76.0	+ 4.7	104	4	49	26	37	3.21	- 0.44	2.00	0	5	-	-	Met. Water Board.	
Hyannis.	Barnstable.	31	20	72.4	- 0.4	92	10	57	7	22	3.72	+ 0.92	3.36	0	6	21	8	C. F. Sleeper.	
Lawrence.	Essex.	51	27	76.4	+ 3.8	106	4	51	26	35	3.19	- 0.13	2.03	0	6	9	18	Essex Company.	
Lowell.	Middlesex.	100	26	77.6	+ 6.1	103	5	54	26	31	3.35	- 0.34	2.36	0	3	26	3	Props. Locks & Canals.	
Middleboro.	Plymouth.	53	25	72.4	+ 3.2	99	10	45	8	37	4.62	+ 1.54	2.84	0	5	4	17	A. R. Gurney.	
Monson.	Hampden.	420	27	-	-	-	-	-	-	-	-	-	-	-	-	-	Dr. G. E. Fuller.		
Nantucket.	Nantucket.	15	25	71.0	+ 3.5	88	10	59	1	21	3.20	+ 0.52	2.12	0	6	14	12	5	U. S. Weather Bureau.
New Bedford.	Bristol.	88	99	74.0	+ 5.0	90	10†	57	28	24	5.75	+ 2.41	4.08	0	7	23	3	City Engineer.	
Norfolk.	Norfolk.	244	8	73.8	-	101	5†	43	23	40	4.30	-	3.06	0	6	19	9	Ruby H. Martyn.	
Northampton.	Hampshire.	205	3	-	-	-	-	-	-	-	-	-	-	-	-	-	D. E. Hoxie.		
Plymouth.	Plymouth.	26	71.6	-	94	6†	53	8†	28	5.54	-	3.97	0	3	29	5	4	Laura B. Knapp.	
Provincetown.	Barnstable.	40	24	72.2	+ 2.5	93	10†	54	26	27	3.33	+ 0.40	2.26	0	4	27	0	Gideon Bowley.	
Rockport.	Essex.	25	9	70.2	-	95	6	54	26	29	10.77	-	4.85	0	7	14	12	C. F. P. Bearse.	
Rutland.	Worcester.	1,160	9	73.3	-	100	5	52	25†	29	2.62	-	1.02	0	5	17	8	State Sanatorium.	
South Egremont.	Berkshire.	764	9	68.7	-	90	4	43	26	33	3.38	-	0.98	0	12	-	-	Roscoe C. Taft.	
Turners Falls.	Franklin.	200	20	73.7	+ 3.8	100	4	51	26	30	2.72	- 1.61	1.03	0	5	-	-	Turners Falls Co.	
Westboro.	Worcester.	298	37	77.2	+ 5.1	105	4	51	26	37	2.92	- 0.67	1.47	0	7	-	-	G. S. Newcomb.	
Williamstown.	Berkshire.	711	30	71.8	-	97	4†	49	26	31	2.30	-	0.69	0	10	14	7	Williams College.	
Worcester.	Worcester.	513	19	70.9	- 0.5	102	4	56	26	28	2.92	- 1.05	0.81	0	8	17	6	G. W. Swan.	
<i>Rhode Island.</i>																			
Block Island.	Newport.	26	31	70.9	+ 2.8	92	11	60	26	22	2.95	- 0.36	1.63	0	6	15	8	8	U. S. Weather Bureau.
Bristol.	Bristol.	53	25	72.4	+ 2.6	88	11	59	6†	18	4.36	+ 1.23	2.87	0	5	23	4		

TABLE 1.—Climatological data for July, 1911. District No. 1—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.				Precipitation, in inches.				Number of rainy days, 0.01 inch or more.	Number of partly cloudy days.	Number of cloudy days.	Sky.	Prevailing wind direction.	Observers.	
				Mean.	Departure from the normal.	Highest.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.							
<i>New York.</i>																		
Addison.	Steuben.	1,000	21	73.4	+ 3.1	106	4	46	18	43	2.57	- 1.02	0.79	0	10	23	sw.	Dr. H. R. Ainsworth.
Albany.	Albany.	97	90	75.3	+ 3.3	104	4	55	26	29	3.16	- 0.74	1.05	0	11	10	s.	U. S. Weather Bureau.
Alfred.	Allegany.	1,976	16	74.8	+ 1.2	98	4	41	18	37	3.25	0.07	1.10	0	9	21	w.	Prof. F. S. Place.
Amsterdam.	Montgomery.	277	7	72.8	—	100	5	46	26	39	1.15	—	0.45	0	7	22	sw.	Emery Elwood.
Athens.	Greene.	90	9	74.2	—	102	3	50	26	32	3.56	—	2.00	0	11	11	w.	E. C. Brooks.
Ballston Lake.	Saratoga.	400	7	71.0	—	98	3	43	26	35	1.33	—	0.58	0	7	20	s.	George R. Schauber.
Bedford.	Westchester.	450	20	76.5	+ 3.9	102	3†	50	26	35	3.18	- 1.38	1.20	0	9	16	nw.	Dr. L. Rosenberg.
Binghamton.	Broome.	875	20	72.3	+ 2.4	98	4	49	19	33	2.66	- 0.88	1.00	0	10	15	w.	U. S. Weather Bureau.
Buckville.	Madison.	1,350	14	69.8	+ 1.8	95	3†	47	26	31	5.05	+ 0.40	1.96	0	7	10	sw.	L. W. Griswold.
Boyd's Corners.	Putnam.	500	29	—	—	—	—	—	—	—	2.60	- 2.10	0	—	—	—	Do.	Thomas Manning.
Carmel.	do.	500	19	72.7	+ 0.5	100	4†	49	26	32	2.79	- 2.39	1.22	0	7	21	s.	Morton R. Tank.
Chatham.	Columbia.	470	10	74.2	+ 3.3	103	4	48	26	33	2.28	- 1.72	0.41	0	14	17	s.	Miss Elizabeth Keese.
Cooperstown.	Otsego.	1,250	57	69.7	+ 1.6	94	4†	46	27	32	3.03	- 1.51	0.85	0	11	20	w.	A. M. Hollister.
Corinth.	Saratoga.	542	9	—	—	—	—	—	—	—	3.05	- 1.45	0	—	—	—	Do.	F. G. Baker.
Cortland.	Cortland.	1,129	49	—	—	101	4	48	26†	33	3.00	- 1.88	1.76	0	11	20	s.	Wm. A. Fleet.
Cutchogue.	Suffolk.	32	34	73.3	+ 1.3	96	11	54	26	25	2.63	- 0.72	0.90	0	6	17	sw.	B. D. Crandall.
De Ruyter.	Madison.	1,300	8	69.0	—	98	5	43	14†	35	3.41	- 1.32	0	0	5	24	s.	Prof. C. L. Williams.
Glens Falls.	Warren.	340	20	73.4	+ 2.5	101	3†	47	27	35	2.56	- 1.46	0.77	0	10	16	w.	W. L. McLean.
Gloversville.	Fulton.	850	19	70.8	+ 1.9	100	5	42	26	38	0.96	- 3.23	0.40	0	5	19	nw.	S. E. Darrow.
Greenfield Center.	Saratoga.	314	13	72.2	+ 2.2	100	3†	46	26	38	1.63	- 2.40	0.70	0	7	21	s.	Homer J. Whitcomb.
Greenwich.	Washington.	425	14	—	—	104	5†	50	14†	42	1.80	- 1.80	0.71	0	7	19	w.	Harold O. Judd.
Griffith Corners.	Delaware.	2,260	11	—	—	100	4	—	—	—	2.92	- 0.96	1.67	0	10	15	s.	W. G. Collins.
Haskinsville.	Steuben.	—	16	—	—	—	—	—	—	—	2.19	- 2.52	0	—	—	—	Do.	Charles C. Mortimer.
Homer.	Cortland.	—	20	70.2	+ 4.0	98	5	46	26†	36	4.49	- 1.40	0	0	8	21	nw.	Sanford L. Cluett.
Hoosick Falls.	Rensselaer.	410	9	—	—	—	—	—	—	—	3.07	- 1.20	0	—	—	—	se.	Lester Severie.
Indian Lake.	Hamilton.	1,705	12	67.6	+ 2.3	103	3	38	27	51	1.15	- 2.82	0.50	0	4	15	w.	Charles Wilfert, Jr.
Jeffersonville.	Sullivan.	1,240	8	70.9	—	99	4	42	26	38	2.28	- 0.50	0	0	9	19	w.	Dr. H. M. King.
Liberty.	do.	2,300	29	70.6	+ 3.4	95	4†	47	26	33	2.66	- 2.11	0.70	0	9	21	nw.	O. J. Dempster.
Littles Falls.	Herkimer.	924	13	72.2	+ 2.8	97	5	48	26†	35	2.30	- 2.46	0.92	0	5	23	s.	Albert K. Smiley.
Mohonk Lake.	Ulster.	1,245	15	72.5	+ 2.8	96	3	54	26	25	2.50	- 3.13	1.00	0	7	18	w.	T. C. Remonda.
Morehouseville.	Hamilton.	1,037	3	64.4	—	94	5	38	23	40	2.73	- 1.20	0	0	7	24	s.	W. A. Cornelius.
Mount Hope.	Westchester.	200	14	76.0	+ 2.9	100	6	57	30	31	3.15	- 2.35	1.10	0	6	18	nw.	Lymann D. Clinton.
Newark Valley.	Tioga.	825	24	—	—	104	5†	50	14†	42	1.80	- 1.80	0.71	0	7	19	w.	Roger Greene.
New Berlin.	Chenango.	—	4	—	—	—	—	—	—	—	2.92	- 0.96	1.67	0	10	15	s.	Edward Spain.
Newcomb.	Essex.	1,600	—	65.3	—	96	5	40	8	46	2.96	- 1.70	0	0	6	19	s.	G. A. Yates.
New Lisbon.	Otsego.	1,234	21	67.1	+ 1.6	90	4	40	19†	39	4.03	- 1.00	2.12	0	10	11	s.	U. S. Weather Bureau.
New York City.	New York.	314	86	76.0	+ 2.5	98	3	62	28	24	1.55	- 2.99	0.55	0	8	9	sw.	W. G. Kenwell.
North Creek.	Warren.	1,002	3	69.6	—	96	3	42	19	38	2.74	- 0.80	0	0	6	16	s.	P. C. Pickard.
Northville.	Fulton.	742	9	—	—	—	—	—	—	—	1.69	- 0.94	0	0	4	—	sw.	P. L. Clark.
Norwich.	Chenango.	1,015	5	70.8	—	98	6	47	20†	33	1.85	- 1.10	0	0	4	—	nw.	H. W. Leo.
Oneonta.	Otsego.	1,112	17	72.3	+ 2.2	97	3†	46	19†	37	1.45	- 3.27	0.71	0	6	24	s.	John P. Davis.
Oxford.	Chenango.	916	46	70.2	+ 1.8	95	3†	48	26†	32	2.20	- 1.96	1.12	0	5	10	w.	Wilbur F. Crane.
Port Jervis.	Orange.	470	27	74.0	+ 2.8	101	3†	48	19	38	4.14	- 1.18	0.80	0	10	13	s.	John O'Mara.
Rome.	Oneida.	445	15	69.2	—	97	11	46	20	39	5.27	- 2.28	0	0	7	—	nw.	Joseph Ryan.
Salisbury.	Herkimer.	1,526	14	68.8	+ 0.7	94	5	42	27	35	2.42	- 3.09	1.08	0	6	17	s.	C. H. Wilmarth.
Scarsdale.	Westchester.	200	7	74.5	—	98	3†	52	26	29	2.80	- 1.30	0	0	6	10	s.	Sebas B. Strong.
Setauket.	Suffolk.	40	26	74.4	+ 2.3	98	10	55	26	28	2.97	- 1.48	0.78	0	7	20	s.	E. B. Collins.
Sherburne.	Chenango.	—	4	—	—	—	—	—	—	—	3.86	- 1.65	0	—	—	—	sw.	W. L. Jagger.
Southampton.	Suffolk.	36	10	71.8	+ 1.0	93	11	53	26	24	2.47	- 0.25	0.58	0	8	17	s.	Thomas Manning.
Southeast Reservoir.	Putnam.	310	16	—	—	—	—	—	—	—	1.35	- 2.89	0	—	—	—	sw.	George E. Fifield.
Spier Falls.	Saratoga.	400	10	72.9	—	102	3	45	27	42	2.24	- 0.72	0	0	7	9	sw.	C. W. Young.
Trenton Falls.	Oneida.	751	8	—	—	—	—	—	—	—	2.97	- 1.19	0	0	6	—	sw.	R. S. Marshall.
Tribeshill.	Montgomery.	268	8	—	—	—	—	—	—	—	0.90	- 0.40	0	0	4	—	sw.	W. E. Young.
Utica.	Oneida.	537	45	—	—	—	—	—	—	—	1.28	- 3.34	0.64	0	4	—	sw.	H. B. Fullerton.
Wadding River.	Suffolk.	112	5	78.0	—	100	10	61	26	30	2.40	- 0.60	1.75	0	7	25	s.	H. C. Townsend.
Weppingers Falls.	Dutchess.	110	21	74.6	+ 1.7	100	4	52	26	30	4.02	- 0.60	1.75	0	12	16	sw.	John W. Sly.
Warwick.	Orange.	538	17	—	—	—	—	—	—	—	2.75	- 1.96	0.58	0	9	—	nw.	Hon. J. F. Shoemaker.
Waverly.	Tioga.	824	29	73.2	+ 2.8	102	4†	43	20	44	3.37	- 0.51	1.77	0	11	9	sw.	Vernon E. Dewey.
Wells.	Hamilton.	1,000	5	69.6	—	100	3†	40	23	43	1.43	- 0.65	0	0	4	—	sw.	W. J. Haverly.
West Berne.	Albany.	946	12	69.6	± 0.8	98	4†	41	19†	43	3.05	- 1.09	1.25	0	9	13	se.	U. S. Military Academy.
West Point.	Orange.	167	62	76.1	+ 2.1	104	4	54	26	32	2.97	- 1.65	0.90	0	10	14	w.	A. R. Mott.
Windham.	Greene.	1,520	11	69.0	+ 1.6	97	4	43	19†	36	2.12	- 1.48	0.74	0	11	10	sw.	Henry H. Gulse.
<i>Pennsylvania.</i>																		
Altoona.	Blair.	1,181	23	76.0	+ 4.4	99	5	53	26	28	2.02	- 1.61	.58	0	7	—	w.	C. W. Billin.
Bethlehem.	Northampton.	260	10	79.2	+ 5.1	100	3	56	23	29	2.88	- 1.76	.91	0	6	21	sw.	Prof. E. C. Roest.
Clearfield.	Clearfield.	1,107	3	71.2	—	101	4	42	17	43	1.47	- .85	0	0	8	21	w.	Raymond C. Odgen.
Drifton.	Luzerne.	1,033	13	71.1	+ 2.3	96	3	45	26	33	4.71	+ .69	1.00	0	15	23	s.	Eckley B. Coxe, jr.
Emporium.	Cameron.	1,050	24	70.6	—	95	4	45	27†	39	1.64	- 3.15	.49	0	7	18	w.	T. B. Lloyd.
Ephrata.	Lancaster.	384	11	75.6	+ 1.0	101	3	49	26	44	5.02	+ .62	2.73	0	8	24	s.	W. L. Frantz.
Everett.	Bedford.	1,080	13	72.8	+ .9	97	4†	44	26	39	1.70	- 2.42	.40	0	4	11	w.	B. L. Steckman.
George School.	Bucks.	184</																

TABLE 1.—Climatological data for July, 1911. District No. 1—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years	Temperature, in degrees Fahrenheit.						Precipitation, in inches.						Sky.	Prevailing wind direction.	Observers..		
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmetted.	Number of rainy days 0.01 inch or more.	Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
<i>New Jersey.</i>																				
Asbury Park.....	Monmouth.....	22	23	74.0	+ 1.1	96	6	60	26	29	3.36	- 1.88	0.87	0	6	10	14	7	s.	B. H. Obert.
Atlantic City.....	Atlantic.....	16	38	74.6	+ 2.1	96	11	62	19	21	4.15	+ .37	1.67	0	8	14	6	11	sw.	U. S. Weather Bureau.
Bayonne.....	Hudson.....	50	21	76.6	+ 2.2	99	11	57	26	28	2.94	- 2.19	.97	0	10	15	8	8	s.	John H. Eadie.
Belvidere.....	Warren.....	289	20	74.3	+ 1.6	99	3	51	19†	34	2.64	- 2.96	.70	0	8	11	12	8	se.	Samuel J. Hixson.
Bergen Point.....	Hudson.....	37	14	75.6	+ 2.2	98	3†	55	26	29	3.08	- 2.43	.95	0	9	10	13	8	se.	Dr. William H. Mitchell.
Boonton.....	Morris.....	413	21	.....	.....	.....	.....	.....	.....	.....	3.06	- 2.40	.64	0	11	10	14	7	.....	Foster Peer.
Bridgeton.....	Cumberland.....	30	30	78.2	+ 1.1	102	10†	56	19	31	2.15	- 2.28	1.65	0	3	11	10	10	sw.	Henry A. Jordan.
Burlington.....	Burlington.....	12	27	.....	.....	.....	.....	.....	.....	.....	3.06	- 1.97	1.32	0	6	10	14	7	w.	P. S. B. McCoy.
Canton.....	Salem.....	24	17	75.2	+ 1.8	94	11	64	19†	20	3.44	- .34	2.18	0	4	13	12	6	sw.	John H. Maskell.
Cape May City.....	Cape May.....	17	27	75.2	+ 1.8	94	11	64	19†	20	3.44	+ 1.05	2.82	0	6	12	16	3	sw.	U. S. Weather Bureau.
Charlotteburg.....	Fairfield.....	719	19	72.6	+ 3.1	98	3	42	26	36	3.65	.....	1.30	0	8	13	12	6	sw.	George S. Briggs.
Chatham.....	Morris.....	234	9	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0	6	14	11	6	n.	M. A. Butler.
Clayton.....	Gloucester.....	126	18	77.0	+ 1.0	102	3	56	26	32	3.53	- .74	1.77	0	6	10	14	7	w.	William T. Farley.
College Farm \$.....	Middlesex.....	100	16	76.0	+ 3.3	102	3	53	26	32	5.34	+ .37	2.59	0	7	11	13	7	sw.	George B. Thrasher.
Culver's Lake.....	Sussex.....	848	10	.....	.....	.....	.....	.....	.....	.....	5.98	.....	2.06	0	10	10	13	8	se.	Brice E. Riker.
Dover.....	Morris.....	600	27	73.1	+ 1.7	102	3	46	26	34	3.63	- 1.85	1.03	0	7	4	17	10	.....	William C. Harriss.
Elizabeth.....	Union.....	33	32	79.0	+ 3.5	102	11	56	26	28	2.69	- 2.57	1.11	0	7	10	16	5	s.	Hiram E. Deats.
Flemington.....	Hunterdon \$.....	187	23	76.8	+ 2.9	101	3†	52	26	31	4.05	- .91	1.31	0	8	11	12	8	sw.	Charles F. Richardson.
Haddonfield \$.....	Camden.....	75	24	76.3	+ 0.8	101	3	52	26	30	2.06	- 2.24	.97	0	6	14	11	6	n.	Orville Bassett.
Hammonton.....	Atlantic.....	103	13	.....	.....	.....	.....	.....	.....	.....	4.46	- 2.23	2.12	0	7	11	13	7	sw.	Ernst V. Enger.
Hightstown.....	Warren.....	119	19	76.0	+ 2.0	103	3	52	19†	35	4.43	- 1.54	1.75	0	8	11	13	7	sw.	Charles J. Bates.
Hightwood.....	Bergen.....	90	40	74.0	.....	98	3	50	26	30	2.67	.....	1.09	0	8	8	8	sw.	James Armstrong.	
Highwood.....	Burlington.....	76	22	75.9	+ 1.8	104	3	51	19†	38	4.04	- .02	1.55	0	9	12	11	8	se.	Samuel K. Pearson, Jr.
Jersey City.....	Hudson.....	15	13	78.3	+ 3.6	102	11	60	26	29	2.35	- 2.43	.91	0	9	9	17	5	s.	Ralph Robertson.
Lakewood.....	Ocean.....	54	9	75.2	.....	98	6†	55	26	27	2.51	.....	.93	0	8	14	7	sw.	William R. Bowe.	
Lambertville.....	Hunterdon.....	95	25	77.6	+ 3.1	101	3	54	19†	31	3.74	- 1.30	1.82	0	6	13	10	8	sw.	A. Sweetman.
Little Falls.....	Passaic.....	175	8	.....	.....	.....	.....	.....	.....	.....	2.85	.....	0	8	8	8	8	sw.	Charles L. Barker.	
Mahwah.....	Bergen.....	312	9	.....	.....	.....	.....	.....	.....	.....	4.55	.....	1.60	0	8	8	8	sw.	John C. Beans.	
Moorestown.....	Burlington.....	71	49	77.4	+ 2.6	101	3	55	26	30	2.09	- 2.49	1.04	0	4	15	8	8	nw.	Prof. Wm. Wiener.
Newark.....	Essex.....	130	68	77.4	+ 3.1	103	3	54	26	30	3.72	- 1.01	1.01	0	9	7	17	7	sw.	William T. Woerner.
New Brunswick.....	Middlesex.....	61	58	76.6	+ 2.3	104	3	50	26	25	4.06	- .99	1.60	0	7	15	7	9	sw.	F. Vernon Losee.
Newton.....	Sussex.....	678	32	74.4	+ 2.5	98	3†	51	19†	32	4.87	+ .17	1.28	0	10	12	11	8	sw.	William L. Flick.
Northfield.....	Atlantic.....	4	.....	.....	.....	.....	.....	.....	.....	.....	4.71	.....	2.31	0	8	8	8	sw.	Heber A. Probert.	
Paterson.....	Passaic.....	80	40	75.7	+ 1.4	100	3†	53	26	31	2.58	- 2.75	.86	0	9	8	17	6	sw.	D. W. Smith.
Phillipsburg.....	Warren.....	363	14	76.3	+ 2.3	102	3†	51	26	34	2.94	- 1.91	0.65	0	9	12	11	5	sw.	John Neagle.
Plainfield.....	Union.....	100	25	76.0	+ 2.1	103	10	51	26	33	3.85	- 1.53	1.29	0	7	13	13	5	sw.	Lincoln Van Gilder.
Pleasantville.....	Atlantic.....	26	13	.....	.....	.....	.....	.....	.....	.....	5.52	+ 1.33	1.72	0	7	14	8	9	sw.	M. S. Taylor.
Pompton Plains.....	Morris.....	195	9	.....	.....	.....	.....	.....	.....	.....	4.53	.....	1.19	0	10	10	10	10	sw.	Peter Hardeaste.
Somerville.....	Somerset.....	76	28	77.0	+ 3.1	104	10	52	26	34	4.46	+ 1.33	3.25	0	7	14	8	9	nw.	Dr. William J. Chandler.
South Orahge.....	Essex.....	200	41	75.6	+ 2.5	98	3	53	26	28	2.55	- 2.57	.99	0	9	11	8	sw.	George Dymock.	
Sussex.....	Sussex.....	442	21	74.0	+ 2.3	100	3†	46	19	37	3.00	- 1.52	.98	0	9	10	16	5	sw.	Alfred Chalmers.
Vineland.....	Cumberland.....	118	42	77.2	+ 1.8	102	10	55	19	35	3.92	- .59	1.42	0	7	14	10	7	sw.	Prof. H. A. Dodge.
Woodline.....	Cape May.....	43	20	75.8	+ 1.9	98	10	51	19	34 <sup>a</sup>	2.39	- 1.63	1.24	0	5	14	10	7	sw.	J. M. Mallow.
<i>West Virginia.</i>																				
Bayard.....	Grant.....	2,500	10	68.2	+ 0.4	95	4	40	23	45	3.18	- 1.35	1.01	0	7	17	13	1	w.	Solomon Clark.
Burlington.....	Mineral.....	875	17	73.2	+ 0.2	96	2	45	26	41	2.65	- 1.05	1.40	0	6	9	22	0	w.	J. W. Vandiver.
Lost City.....	Hardy.....	5	70.7	.....	.....	90	4	48	23†	34 <sup>a</sup>	0.40	.....	0.19	0	4	20	11	0	s.	B. D. Hinegardner.
Martinsburg.....	Berkeley.....	435	19	78.2	+ 2.9	102	3	51	26	41	2.44	- 1.71	0.90	0	6	21	10	0	s.	G. W. Van Metre.
Romney.....	Hampshire.....	824	14	75.8	+ 0.5	101	4	46	26	43	2.59	- 0.89	1.05	0	6	26	5	0	w.	John C. Linthicum.
Upper Tract.....	Pendleton.....	1,230	14	72.4	- 0.2	95	2	45	23†	43	3.72	+ 0.10	1.63	0	8	0	31	0	w.	J. M. Mallow.
<i>Maryland.</i>																				
Annapolis.....	Anne Arundel ..	45	33	80.9	+ 2.6	98	6†	61	23	28	1.03	- 4.06	0.57	0	5	25	5	1	sw.	U. S. Naval Academy.
Baltimore.....	Baltimore.....	115	41	79.2	+ 1.9	98	6	61	19	24	3.53	- 1.29	2.06	0	6	16	11	4	s.	U. S. Weather Bureau.
Cambridge.....	Dorchester.....	25	13	81.4	+ 2.5	103	3	58	19	35	0.93	- 4.35	0.58	0	3	15	15	1	s.	T. E. Keenan.
Cheltenham.....	Prince George.....	230	11	77.9	.....	93	3	52	19	34	0.78	.....	0.46	0	2	23	7	1	sw.	J. E. Burbank.
Chestertown.....	Kent.....	80	26	78.4	+ 2.5	98	3	58	26	28	3.71	- 0.45	1.70	0	9	20	11	0	s.	M. W. Thomas.
Chewsville.....	Washington.....	530	14	76.1	+ 1.6	99	3	49	26	33	3.23	- 0.63	1.60	0	6	14	17	0	sw.	D. Paul Oswald.
Clear Spring.....	do.....	650	14	74.6	+ 0.8	97	4	53	23	31	4.68	+ 0.42	3.25	0	7	13	18	0	sw.	W. W. Frantz.
Coleman.....	Kent.....	80	13	78.4	.....	99	3	59	23†	28	3.93	- 0.65	1.15	0	7	22	7	2	sw.	J. S. Harris.
College Park.....	Prince George.....	170	21	76.6	+ 1.3	103	3	50	19†	40	0.90	- 3.75	0.72	0	3	19	9	3	se.	Prof. H. J. Patteson.
Cumberland.....	Allegany.....	700	37	.....	.....	.....	.....	.....	.....	.....	0.39	- 2.83	0.20	0	4	21	9	1	sw.	J. W. Galbreath.
Darlington.....	Harford.....	300	19	76.6	+ 1.9	97	3	55	19†	32	4.47	- 0.39	1.65	0	7	21	9	1	sw.	H. B. Mason.
Denton.....	Caroline.....	42	16	78.1	+ 1.5	102	3	52	19†	41	1.92	- 2.16	0.88	0	6	25	2	4	s.	Henry Shreve.
Easton.....	Talbot.....	35	20	78.0	+ 1.7	96	3†	55	19	31	2.38	- 2.08	0.86	0	9	17	14			

TABLE 1.—*Climatological data for July, 1911. District No. 1—Continued.*

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.				Precipitation, in inches.				Sky.	Prevailing wind direction.	Observers.				
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, melted.	Number of rainy days, 0.01 inch or more.	Number of clear days.	Number of partly cloudy days.	Number of cloudy days.
<i>Delaware.</i>																		
Delaware City.....	Newcastle.....	20	9	77.6	.....	96	3†	69	26	27	4.05	.....	2.78	0	4	28	2	1
Dover.....	Kent.....	40	23	78.8	+ 2.0	102	3†	55	19	33	1.20	- 3.66	0.46	0	5	19	9	3
Milford.....	do.....	20	27	78.2	+ 1.4	100	10	58	19†	30	1.97	- 1.77	0.83	0	11	18	9	4
Millsboro.....	Sussex.....	20	19	77.6	+ 1.3	102	10	49	19	37	3.03	- 1.13	2.06	0	8	20	7	4
Seaford.....	do.....	40	18	77.7	+ 1.5	98	3†	58	19	30	3.21	- 1.93	1.33	0	8	26	2	3
<i>District of Columbia.</i>																		
Washington.....		112	41	78.7	+ 1.9	99	3	56	19	31	4.47	- 0.18	2.56	0	7	14	13	4
<i>Virginia.</i>																		
Dale Enterprise.....	Rockingham.....	1,350	32	74.2	+ 0.3	103	3	44	26	48	5.31	+ .89	2.10	0	11	11	18	2
Eastville.....	Northampton.....	15	1	80.2	+ 1.7	101	11	59	26†	32	1.77	- 2.73	1.15	0	6	17	10	4
Fredericksburg.....	Spotsylvania.....	100	22	77.5	+ 0.4	97	3	54	19†	32	2.03	- 2.55	.92	0	6	18	13	0
Lincoln.....	Loudoun.....	500	10	78.9	+ 3.0	104	2†	50	26	41	1.51	- 2.27	.55	0	5	18	11	2
Mount Weather.....	do.....	1,726	7	73.4	+ 2.0	91	3	57	18	29	1.25	- 3.41	.96	0	7	11	17	3
Quantico.....	Prince William.....	16	14	80.0	+ 3.3	101	3	53	26	32	3.64	.....	1.41	0	4	24	7	0
Staunton.....	Augusta.....	1,380	19	75.2	+ 1.1	98	3	50	26	34	4.61	+ .85	2.35	0	10	8	21	2
Warsaw.....	Richmond.....	160	19	78.1	+ 0.7	98	11	58	22	28	4.95	+ .24	1.50	0	7	9	19	1
Woodstock.....	Shenandoah.....	927	15	76.2	+ 0.3	101	6	48	26	42	3.61	- .16	1.40	0	8	15	12	4

a, b, c, etc., indicate, respectively, 1, 2, 3, etc., days missing from the record.

\*\* Temperature extremes are from observed readings of the dry bulb; means are computed from observed readings.

† Also on other dates.

T. Precipitation is less than 0.01 inch rain or melted snow.

H. Morton Price.  
Thos. F. Dunn.  
Chas. J. Holzmueller.  
Rev. L. W. Wells.  
E. B. Brown.U. S. Weather Bureau.  
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Dr. Geo. Roberts.  
U. S. Weather Bureau.  
Rich., Fdkshg. & Pot. R. R.  
Ernest Nottingale.  
C. H. Constable.  
Mrs. A. G. Artz.

TABLE 2.—*Daily precipitation for July, 1911. District No. 1, North Atlantic States.*

TABLE 2.—*Daily precipitation for July, 1911. District No. 1—Continued.*

TABLE 2.—*Daily precipitation for July, 1911.*—District No. 1—Continued.

TABLE 2.—*Daily precipitation for July, 1911. District No. 1—Continued.*

\* Precipitation included in that of the next measurement.

† Separate dates of falls not recorded.

Precipitation for the 24 hours ending on the morning when it is measured.  
Precipitation is less than 0.01 inch rain or melted snow.

T. Precipitation is less than 0.01 inch rain or melted snow.

## MONTHLY WEATHER REVIEW.

JULY, 1911

TABLE 3.—Maximum and minimum temperatures at selected stations, July, 1911. District No. 1, North Atlantic States.

Date.	Maine.												Massachusetts.								Connecticut.									
	Eastport.		Greenville.		Orono.		Portland.		Presque Isle.		Rumford.		Concord, N. H.		Amherst.		Boston.		Middle- boro.		Nantucket.		Provi- dence, R. I.		Cream Hill.		Hartford.			
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.		
1....	79	61	86	56	88	54	88	63	88	58	89	56	91	53	88	66	87	51	80	59	88	63	88	61	88	61	88	61		
2....	73	52	86	66	89	61	88	68	90	65	93	64	96	63	96	71	91	62	77	65	91	70	91	64	93	67	93	67		
3....	62	52	93	68	90	66	92	71	100	70	101	70	102	70	102	78	94	66	75	64	94	70	96	74	100	74	100	74		
4....	72	53	92	68	95	66	103	79	101	71	102	72	104	72	104	74	91	69	77	66	94	71	98	72	99	72	99	72		
5....	84	54	90	63	91	63	82	67	—	—	93	67	101	69	102	72	95	76	93	70	76	66	91	74	96	71	96	74		
6....	79	54	93	68	96	64	77	68	—	—	100	69	99	72	98	71	101	72	93	71	77	66	97	70	93	72	98	73		
7....	74	61	78	58	95	63	77	64	—	—	84	60	87	61	90	70	79	69	80	68	74	61	81	65	84	68	86	69		
8....	80	56	84	46	83	48	79	59	88	45	88	52	87	55	86	58	83	65	82	45	76	60	80	59	73	60	84	61		
9....	76	57	89	58	90	61	91	63	84	60	92	60	94	62	95	60	94	66	85	57	77	63	89	62	91	58	95	63		
10....	69	56	93	72	94	60	94	71	88	65	100	69	101	66	100	73	98	78	99	69	88	67	99	77	95	71	100	76		
11....	67	56	93	70	94	63	90	70	99	65	96	71	96	72	98	70	100	80	97	69	85	68	97	78	91	70	97	75		
12....	85	55	86	67	95	65	96	73	90	64	92	66	95	69	96	70	98	78	92	65	88	68	91	75	80	68	94	64		
13....	82	63	80	53	94	55	86	67	85	50	90	58	84	61	87	60	89	73	87	60	82	67	86	67	78	56	84	68		
14....	77	59	78	51	84	50	76	52	93	45	82	52	82	55	78	56	79	71	82	56	76	66	80	68	77	54	74	65		
15....	72	56	81	51	83	54	78	63	85	45	84	56	87	59	88	54	88	69	85	58	80	63	88	66	81	56	85	60		
16....	67	54	83	54	83	58	73	62	85	56	83	59	87	62	89	67	88	67	84	57	78	63	79	64	83	62	87	67		
17....	68	52	68	57	83	61	65	60	83	60	72	63	77	66	83	67	73	66	83	66	78	64	79	68	75	60	81	68		
18....	58	54	74	58	73	60	71	59	71	58	76	60	82	62	85	60	80	66	85	68	80	64	84	68	77	55	80	63		
19....	80	58	82	56	84	57	80	60	84	60	89	58	84	53	82	60	80	63	85	56	79	66	85	64	80	55	83	60		
20....	73	55	77	49	85	49	76	58	82	50	72	54	80	52	84	60	82	65	81	51	78	64	82	65	81	60	85	65		
21....	70	53	80	51	82	53	75	57	83	50	80	54	81	55	81	56	79	65	75	59	76	66	76	78	56	80	65	76		
22....	62	54	74	54	83	56	72	60	76	52	87	58	81	56	82	60	84	65	80	61	75	67	82	66	76	52	79	65		
23....	77	54	73	47	80	49	77	56	77	50	77	48	81	51	82	53	83	63	81	49	78	65	81	62	73	56	81	57		
24....	68	56	66	47	80	50	69	62	73	47	69	53	84	63	86	66	81	69	76	65	74	67	76	67	81	58	83	68		
25....	74	60	70	55	76	60	75	58	73	58	72	58	73	59	72	58	83	66	84	75	75	62	83	65	74	60	80	60		
26....	71	57	72	55	86	50	75	54	73	55	75	52	76	51	80	49	81	60	78	46	77	60	78	56	73	51	79	56		
27....	72	53	77	50	78	49	74	55	80	50	80	51	78	49	81	49	72	62	79	51	73	61	77	54	75	54	78	56		
28....	68	55	72	50	79	52	65	58	84	50	70	57	63	58	82	58	65	57	67	57	68	63	64	58	71	52	65	57		
29....	68	56	66	58	75	58	67	61	73	60	66	61	75	58	80	58	79	63	79	58	74	62	78	61	72	55	80	59		
30....	66	54	80	57	79	56	78	60	80	58	77	59	76	63	79	68	81	65	75	66	81	66	77	58	81	67	79	66		
31....	73	53	84	56	88	60	87	64	86	58	86	52	90	56	89	58	87	66	88	59	83	65	89	64	82	61	89	61		
Mns..	72.5	55.6	80.6	57.1	85.6	57.1	80.5	63.0	—	—	83.9	59.3	86.0	60.4	87.7	61.4	86.0	68.2	84.5	60.3	77.6	64.3	84.2	66.1	82.4	60.5	85.9	65.0		
Date.	New Haven, Conn.												New York.								Pennsylvania.								Atlantic City, N. J.	
	Addison.		Albany.		Bingham- ton.		Indian Lake.		Little Falls.		New York.		Everett.		Harris- burg.		Philadel- phia.		Scranton.		State College.		Wellsboro.							
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1....	85	62	92	49	88	59	86	53	89	42	84	54	84	68	90	56	88	63	88	67	84	56	87	55	90	45	81	65	81	65
2....	91	69	101	64	96	69	93	66	100	61	89	66	94	70	93	54	89	70	94	70	94	66	94	72	99	64	86	71	86	71
3....	98	71	104	64	102	73	97	67	103	59	94	72	98	78	76	100	75	99	76	99	76	97	72	101	62	82	72	82	72	
4....	90	71	106	64	104	76	98	71	102	61	94	73	93	75	97	77	98	77	96	76	99	72	99	70	101	61	79	72	72	
5....	92	73	101	67	98	74	97	68	102	51	97	66	92	75	97	65	97	78	94	76	96	74	96	70	99	64	80	72	72	
6....	95	73	100	67	96	76	96	67	95	65	93	77	92	74	93	65	98	74	95	75	98	73	94	71	100	61	80	71	71	
7....	86	70	88	66	85	67	84	68	86	55	88	67	87	71	90	67	93	70	91	75	98	70	87	69	86	65	84	68	68	
8....	79	65	93	59	85	61	84	68	85	40	87	59	77	67	80	66	80	69	86	70	83	70	84	67	90	59	76	67		
9....	90	64	100	65	93	66	95	65	99	62	92	65	88	68	90	69	91	73	90	71	93	68	92	69	95	64	80	71	81	
10....	95	74	98	68	97	71	94	71	96	60	96	73	95	76	90	70	96	75	97	76	95	71	93	72	97	63	87	75	87	
11....	96	75	96	66	94	72	92	67	91																					

TABLE 3.—*Maximum and minimum temperatures for July, 1911. District No. 1—Continued.*

Date.	New Jersey.								Martins- burg, W. Va.	Maryland.								Millsboro, Del.	Washing- ton, D. C.	Virginia.									
	Bridgeton.		Hights- town.		Phillips- burg.		Sussex.			Baltimore.		Darling- ton.		Frederick.		Western Port.					Fredericks- burg.		Staun- ton. §§		Wood- stock.				
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.		Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.			Max.	Min.	Max.	Min.	Max.	Min.				
1....	90	61	89	59	90	62	88	55	92	59	87	66	86	62	86	58	88	55	89	60	86	62	87	59	89	59	90	54	
2....	96	66	99	64	100	66	96	65	100	67	97	73	92	61	98	68	96	62	101	64	98	67	95	63	96	63	96	62	
3....	100	70	103	69	102	70	100	67	102	70	96	78	97	70	100	71	95	63	100	72	99	74	97	74	98	66	98	66	
4....	97	73	98	73	102	74	100	70	102	70	95	78	90	73	96	75	98	67	97	73	97	75	95	71	95	70	97	68	
5....	98	73	97	71	100	74	95	73	99	71	97	76	91	74	98	74	97	66	98	71	98	77	94	73	93	66	100	66	
6....	100	75	97	71	99	70	96	70	101	69	98	76	92	70	98	68	98	64	99	75	98	76	96	73	96	69	101	65	
7....	90	73	91	73	92	71	87	68	95	74	92	68	90	74	97	74	93	67	98	73	95	69	96	71	96	70	96	67	
8....	87	69	83	73	87	65	80	65	88	69	80	72	.....	67	84	70	85	69	79	71	84	70	88	69	86	60	91	67	
9....	97	71	94	68	94	64	92	57	96	69	90	74	89	71	93	76	92	69	96	72	94	74	92	70	90	68	94	68	
10....	102	73	101	70	100	71	98	70	101	74	97	77	93	71	97	75	94	67	102	72	97	74	95	74	93	73	97	72	
11....	102	73	101	69	98	70	95	68	97	71	96	81	94	73	95	73	90	68	98	83	93	75	95	70	88	69	92	70	
12....	88	72	87	71	94	71	93	69	92	70	88	70	86	70	89	70	92	67	88	73	89	72	86	69	89	69	91	70	
13....	92	70	91	66	90	66	85	62	92	70	89	73	85	68	87	73	89	62	88	71	88	72	91	69	88	65	87	65	
14....	83	69	82	62	77	63	80	60	85	64	82	68	81	65	83	64	89	60	76	67	84	69	84	67	87	64	86	65	
15....	88	59	88	58	88	59	84	55	90	64	87	68	84	61	89	67	91	50	85	63	92	69	90	62	88	54	90	53	
16....	92	63	89	65	91	68	85	60	92	61	87	73	85	67	90	64	91	54	85	64	90	70	90	63	88	58	91	53	
17....	83	67	79	65	74	66	75	64	88	63	82	71	78	65	83	63	66	89	64	84	66	83	70	85	70	83	65	83	
18....	81	63	83	57	81	58	79	58	88	59	79	66	78	60	80	58	78	54	84	65	78	60	80	65	79	53	79	54	
19....	87	56	85	52	85	52	83	46	86	55	84	61	81	55	84	54	85	50	83	49	86	56	86	54	81	55	88	52	
20....	91	63	89	59	87	61	84	59	95	58	88	70	87	55	89	66	93	60	86	69	92	69	93	64	89	62	94	78	
21....	90	68	79	64	87	62	83	63	91	68	90	70	84	55	89	68	92	66	92	70	89	61	93	66	90	65	91	63	
22....	85	67	82	62	80	59	78	60	89	65	83	69	81	64	83	65	82	62	84	64	83	64	84	58	88	66	85	61	
23....	86	58	85	53	86	54	82	51	95	54	87	64	83	56	87	56	90	48	90	56	88	58	87	56	86	53	90	51	
24....	96	70	91	63	91	65	86	68	92	63	91	73	86	70	94	72	86	67	94	72	95	75	95	73	90	62	95	68	
25....	82	59	79	59	77	56	79	57	83	60	80	66	77	60	80	60	78	55	83	64	82	65	80	59	80	58	83	58	
26....	82	57	82	52	83	51	79	47	86	51	81	63	82	57	83	54	80	46	76	59	84	58	83	54	80	50	82	48	
27....	83	59	80	56	85	56	80	52	86	59	82	64	81	59	82	62	85	48	77	59	82	62	81	53	85	47	87	54	
28....	79	62	78	60	81	60	76	58	89	57	83	63	85	61	83	57	88	51	80	65	87	61	83	58	86	54	88	52	
29....	93	62	88	59	90	60	88	59	92	58	92	68	86	60	92	60	94	52	89	62	92	65	91	60	89	57	96	54	
30....	82	68	86	66	80	68	82	67	86	59	84	72	81	62	83	68	89	63	83	67	86	68	85	68	77	65	82	65	
31....	90	65	90	61	91	61	91	62	93	63	88	68	87	63	89	61	92	52	86	65	90	66	90	65	91	59	92	59	
Mns.	90.1	66.3	88.6	63.5	89.1	63.5	86.4	61.5	92.4	64.1	88.1	70.3	89.1 <sup>a</sup>	64.2 <sup>a</sup>	83.1	66.0	89.6	59.6	88.6	66.5	89.6	67.8	89.3	65.7	88.1	62.2	90.8	61.6	

<sup>a</sup>, <sup>b</sup>, <sup>c</sup>, etc., indicate respectively, 1, 2, 3, etc., days missing from the record.

§ Data are from standard instruments not supplied by the U. S. Weather Bureau.

§§ Instruments are read in the morning; the maximum temperature then read is charged to the preceding day, on which it almost occurs.